

Mineral Industry Surveys

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IRON ORE IN DECEMBER 2006

U.S. mine production of iron ore in December 2006, on a daily average basis, was 2% less than that of the prior month, according to the U.S. Geological Survey. Average daily production, at 128,000 metric tons per day (t/d), was 2,700 t/d less than that of November 2006.

Average daily shipments in December 2006, at 155,000 t/d, were 5% more than those of November. Mine stocks at the end of December were 831,000 metric tons (t) less than the stocks held on November 30, an 11% decrease.

U.S. imports of iron ore in November 2006 were 57% greater than exports, with imports exceeding exports by 412,000 t.

Price.—The first iron ore contract for the year beginning April 1, 2007, was concluded between Baosteel Group Corporation (China) and Brazil's Companhia Vale do Rio Doce (CVRD) on December 21. This agreement marked several milestones—the first time that Chinese steelmakers established the benchmark price, the earliest benchmark settlement in the past 11 years, and the fifth straight year of iron ore price increases. The prices for lump and fines increased by 9.5% relative to the 2006 reference prices. The 2007 prices were 189% greater than those of 2002.

Australia's BHP Billiton Limited and Rio Tinto plc agreed to basically the same terms shortly thereafter. On December 28, CVRD announced what appeared to be a benchmark agreement with Italian steelmaker ILVA S.p.A. on a pellet price increase of 5.28% (Garside, 2007; Mining Journal, 2007).

World Production.—Rio Tinto announced full-year production figures for 2006. Rio Tinto's share of saleable quantities of iron ore plus pellets were as follows (Australia, unless otherwise specified)—Channar (60% owned), 5.9 million metric tons (Mt); Corumba, Brazil, 2.0 Mt; Eastern Range, 8.2 Mt; Hamersley, 79.2 Mt; Iron Ore Company of Canada (59% owned), 9.4 Mt; and Robe River (53% owned), 28.0 Mt. Rio Tinto's share of total world mine production was 132.8 Mt, a 7% increase from that of 2005 (Rio Tinto plc, 2007§¹).

BHP Billiton announced full-year production figures for 2006. BHP Billiton's share of saleable quantities of iron ore (wet) were as follows (Australia, unless otherwise specified)—Area C Joint Venture (JV) (85% owned), 18.9 Mt; Goldsworthy JV (85% owned), 4.1 Mt; Jimblebar (85% owned), 6.1 Mt; Mt. Newman JV (85% owned), 27.3 Mt; Samarco, Brazil, (50% owned), 7.7 Mt; and Yandi JV (85% owned), 35.0 Mt. BHP Billiton's share of total world mine production was 99.1 Mt, a 2% increase from that of 2005. Rapid Growth Project 3 tie-in activities negatively impacted production (BHP Billiton Limited, 2007§).

Domestic Production.—Cleveland-Cliffs Inc announced production for 2006 for its North American operations. Mine production was as follows (United States, unless otherwise specified): Empire, 5.0 Mt; Hibbing Taconite, 8.4 Mt; Northshore, 5.2 Mt; Tilden, 7.0 Mt; United Taconite, 4.4 Mt; and Wabush (Canada), 4.2 Mt. Cliffs' share of this total production, 34.1 Mt, was 21.1 Mt. Total Cliffs' North American production share for the year was down 6% compared with that of 2005, but overall iron ore sales revenue increased 5% compared with that of 2005 to \$1,375 million (Cleveland-Cliffs Inc, 2007§).

References Cited

- Garside, Ben, 2007, CVRD settles pellet price up 5.28% in Europe: Metal Bulletin, no. 8977, January 8, p. 15.
Mining Journal, 2007, Iron-ore producers settle supply contracts: Mining Journal, January 5, p. 4-5.

Internet References Cited

- BHP Billiton Limited, 2007 (January 25), BHP Billiton production report for the quarter ended 31 December 2006, accessed February 27, 2007, via URL <http://www.bhpbilliton.com>.
Cleveland-Cliffs Inc, 2007 (February 21), Cleveland-Cliffs reports record revenues and operating income for 2006, accessed February 27, 2007, via URL <http://www.cleveland-cliffs.com>.
Rio Tinto plc, 2007 (January 17), Fourth quarter 2006 operations review, accessed February 27, 2007, via URL <http://www.riotinto.com>.

¹References that include a section mark (§) are found in the Internet References Cited section.

TABLE 1
U.S. PRODUCTION AND SHIPMENTS OF IRON ORE^{1, 2}
(Exclusive of ore containing 5% or more of manganese)

(Thousand metric tons)

Period	Production		Shipments	
	Monthly	Year to date	Monthly	Year to date
2005:				
December	4,380	54,500	4,880	51,800
2006:				
January	4,600	4,600	3,600	3,600
February	3,820	8,420	953	4,550
March	4,600	13,000	2,330	6,880
April	4,220	17,200	5,020	11,900
May	4,750	22,000	5,020	16,900
June	4,450	26,400	5,120	22,000
July	4,710	31,100	5,490	27,500
August	4,780	35,900	5,370	32,900
September	4,610	40,500	5,280	38,200
October	4,440	45,000	4,420	42,600
November	3,920	48,900	4,430	47,000
December	3,970	52,900	4,800	51,800

¹Data are rounded to no more than three significant digits.

²Excludes byproduct ores.

TABLE 2
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE IN DECEMBER^{1, 2}

(Thousand metric tons)

State	Production		Shipments ³		Stocks ⁴	
	2006	2005	2006	2005	2006	2005
Michigan	1,050	968	1,110	1,090	1,790	1,670
Minnesota	2,920	3,410	3,690	3,790	4,970	4,080
Total	3,970	4,380	4,800	4,880	6,760	5,750

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Excludes byproduct ore.

³Includes rail and vessel.

⁴Includes usable (marketable) material at mines, concentrators, pelletizing plants, and loading docks. Excludes stocks of crude ore at mine and concentrates at agglomerating complexes.

TABLE 3
CANADA: SHIPMENTS OF IRON ORE^{1,2}

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
2005:				
November	1,910 ^r	1,340 ^r	10	3,260 ^r
December	1,890 ^r	1,160 ^r	9	3,050 ^r
Year total	19,100 ^r	11,200 ^r	106	30,400 ^r
2006:				
January	1,010	705	10	1,720
February	951	730	10	1,690
March	1,210	730	7	1,950
April	1,840	1,170	8	3,030
May	1,670	1,610	12	3,280
June	1,550	1,180	10	2,740
July	2,040	1,220	8	3,270
August	1,740	1,740	8	3,490
September	949	1,340	8	2,300
October	2,280	963	10	3,250
November	2,590	1,010	8	3,610

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes production from steel plant waste oxides.

Source: Natural Resources Canada, December 2006.

TABLE 4
PRODUCTION OF PIG IRON AND RAW STEEL IN THE UNITED STATES, BY TYPE OF
FURNACE¹

(Thousand metric tons)

Period	Pig iron production, blast furnace		Raw steel production			
	Monthly	Year to date	Basic oxygen furnace ²		Electric furnace	
			Monthly	Year to date	Monthly	Year to date
2005:						
November	3,000	33,500	3,170	37,700	4,660	47,800
December	2,840	36,300	3,380	41,000	4,420	52,300
2006:						
January	3,190	3,190	3,560	3,560	4,530	4,530
February	3,100	6,300	3,470	7,030	4,250	8,780
March	3,420	9,710	3,800	10,800	5,070	13,900
April	3,280	13,000	3,640	14,500	4,870	18,700
May	3,460	16,500	3,850	18,300	5,060	23,800
June	3,330	19,800	3,790	22,100	4,790	28,600
July	3,210	23,000	3,660	25,800	4,800	33,400
August	3,200	26,200	3,620	29,400	4,840	38,200
September	3,220	29,400	3,670	33,100	4,750	43,000
October	3,090	32,500	3,460	36,500	4,640	47,600
November	2,780	35,300	3,080	39,600	4,330	51,900

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Raw steel production figures for the basic oxygen process are usually greater than the corresponding pig iron production figures because scrap is routinely melted in the basic oxygen furnace together with the molten pig iron.

Source: American Iron and Steel Institute.

TABLE 5
U.S. EXPORTS OF IRON ORE, BY COUNTRY OF DESTINATION AND TYPE^{1, 2}

(Thousand metric tons)

Country of destination and type of product	2005	2006				
		1st quarter	2nd quarter	3rd quarter	October	November
Algeria	--	--	--	252	44	21
Canada	11,200	998	2,370	2,410	628	661
China	282	--	100	--	--	--
Mexico	30	13	11	10	129	41
Slovakia	237	--	--	--	--	--
United Kingdom	78	--	--	--	--	--
Other	8	1	5	2	(3)	2
Total	11,800	1,010	2,480	2,670	801	725
Pellets	11,600	925	2,420	2,640	790	713
Concentrates	89	2	53	2	1	(3)
Direct shipping ores	60	2	8	20	7	9
Other	11	83	6	7	4	3
Total	11,800	1,010	2,480	2,670	801	725

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes agglomerates.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY COUNTRY AND TYPE^{1,2}
(Exclusive of ore containing 20% or more manganese)

Country of origin and type of product	2006					2005
	November		Year to date			January-November
	Thousand metric tons	Value ³ (thousand dollars)	Thousand metric tons	Value ³ (thousand dollars)	Value ³ (dollars per ton)	Thousand metric tons
Bahamas, The	--	--	--	--	--	140
Brazil	428	22,100	4,280	216,000	50.42	3,810
Canada	648	35,600	5,780	332,000	57.44	6,680
Chile	45	2,480	283	14,000	49.35	270
Greece	--	--	15	386	25.73	23
Mexico	2	45	15	372	24.80	40
Peru	14	479	52	1,710	32.90	33
Russia	--	--	--	--	--	99
Sweden	--	--	(4)	6	342.88	133
Trinidad and Tobago	--	--	299	6,870	22.97	375
Venezuela	--	--	23	439	19.09	148
Other	(4)	10	14	406	29.21	17
Total	1,140	60,700	10,800	572,000	53.15	11,800
Concentrates	252	11,500	2,250	91,200	40.59	1,180
Coarse ores	--	--	--	--	--	56
Fine ores	157	7,140	2,370	103,000	43.31	4,390
Pellets	726	42,000	6,130	378,000	61.65	6,070
Other agglomerates	2	45	15	372	24.80	73
Roasted pyrites	--	--	7	272	38.86	8
Total	1,140	60,700	10,800	572,000	53.15	11,800

-- Zero.

¹Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

²Includes agglomerates.

³Customs value. Excludes international freight and insurance charges.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN NOVEMBER 2006^{1,2}
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Country of origin	Type of product						Total
	Concentrates	Coarse ores	Fine ores	Pellets	Briquettes and other agglomerates	Roasted pyrites	
Brazil	110	--	143	175	--	--	428
Canada	97	--	--	551	--	--	648
Chile	45	--	--	--	--	--	45
Mexico	--	--	--	--	2	--	2
Peru	--	--	14	--	--	--	14
United Kingdom	(3)	--	--	--	--	--	(3)
Total	252	--	157	726	2	--	1,140

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes agglomerates.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY¹

Country of origin	2006					2005
	November		Year to date			January-November
	Thousand metric tons	Value ² (thousand dollars)	Thousand metric tons	Value ² (thousand dollars)	Value ² (dollars per ton)	Thousand metric tons
Brazil	175	11,500	1,570	102,000	65.04	1,720
Canada	551	30,600	4,520	274,000	60.67	4,250
Russia	--	--	--	--	--	99
Trinidad and Tobago	--	--	15	965	64.33	--
Venezuela	--	--	23	439	19.09	--
Total	726	42,000	6,130	378,000	61.65	6,070

-- Zero.

¹Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

²Customs value. Excludes international freight and insurance charges.

Source: U.S. Census Bureau.

TABLE 9
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE,
BY CUSTOMS DISTRICT^{1, 2}
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district (code no.)	November	January-November	
	2006	2006	2005
Baltimore, MD (13)	355	3,720	3,160
Buffalo, NY (09)	--	1	6
Charleston, SC (16)	(3)	1	1
Chicago, IL (39)	233	1,590	1,320
Cleveland, OH (41)	341	2,790	2,760
Detroit, MI (38)	--	102	235
Great Falls, MT (33)	--	--	(3)
Houston-Galveston, TX (53)	--	50	46
Los Angeles, CA (27)	--	(3)	(3)
Mobile, AL (19)	--	5	63
New Orleans, LA (20)	205	2,470	4,130
New York City, NY (10)	--	--	1
Nogales, AZ (26)	2	22	17
Ogdensburg, NY (07)	--	(3)	(3)
Philadelphia, PA (11)	--	6	22
San Francisco, CA (28)	--	--	4
San Juan, PR (49)	--	--	6
St. Louis, MO (45)	--	(3)	--
Wilmington, NC (15)	--	(3)	--
Total	1,140	10,800	11,800

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes agglomerates.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10
U.S. IMPORTS FOR CONSUMPTION OF PELLETS,
BY CUSTOMS DISTRICT¹

(Thousand metric tons)

Customs district (code no.)	November	January-November	
	2006	2006	2005
Baltimore, MD (13)	144	1,520	1,300
Chicago, IL (39)	95	279	53
Cleveland, OH (41)	341	2,790	2,760
Detroit, MI (38)	--	102	235
Houston-Galveston, TX (53)	--	35	36
Mobile, AL (19)	--	--	61
New Orleans, LA (20)	147	1,400	1,620
Total	726	6,130	6,070

-- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.